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I, LEANNE MYNOTT, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. PQ 3251 for a patent by ROBERT JOHN PANNEKOEK filed on 05 October 1999.



WITNESS my hand this
Third day of November 2000

LEANNE MYNOTT
TEAM LEADER EXAMINATION
SUPPORT AND SALES

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APPLICANT:

ROBERT JOHN PANNEKOEK

NUMBER:

FILED:

AUSTRALIA

THE PATENTS ACT 1990

PROVISIONAL SPECIFICATION FOR THE INVENTION ENTITLED:

"AN ELONGATE MEMBER"

The invention is described in the following statement:

TITLE

"AN ELONGATE MEMBER"

The invention relates to an elongate member for locating an article in a location remote from a base plane.

5 It is known to provide an elongate member in the form of a pole for locating an article such as a light source in a location upwardly of and remote from a base plane such as the ground or an elevated platform. Such poles are commonly used in processing plants and refineries for illuminating the plant at night.

10 At present, one method of servicing or replacing the light sources is by incorporating into the pole means for selectively permitting the pole to pivot about a substantially horizontal axis. In this way, the pole may be manually manipulated by a user to bring a remote end of the pole and thereby the light source to a location sufficiently close to the user.

15 However, such poles are generally in excess of 2 metres in length and as a consequence it is difficult to safely manipulate the pole. In particular, there exists a significant risk of injury to persons adjacent the pole should the pole inadvertently fall.

20 An alternative known method of servicing or replacing the light sources is to use a ladder. However, the use of ladders is particularly problematic in processing plants and refineries as the level of activity in the plant or refinery is generally high and the risk of unintentional dislodgment of the ladder is high.

The present invention seeks, therefore, among other things, to provide an elongate member which overcomes at least some of the above mentioned disadvantages.

In accordance with an aspect of the present invention, there is provided an elongate member for locating an article in a location upwardly of and remote from a base plane, said elongate member including a first elongate portion extending, in use, upwardly of said base plane, a second elongate portion adapted to receive said article, and interconnecting means, the interconnecting means being adapted to connect said first portion to said second portion and to permit said second portion to rotate relative to said first portion about an axis inclined relative to said base plane such that said second portion is movable between a first orientation wherein an end of said second portion remote from the interconnecting means locates relatively remote from said base plane and a second orientation wherein said remote end of said second portion locates relatively adjacent said base plane.

The present invention will now be described, by way of example only, with reference to the accompanying drawings, in which:-

Figure 1 is a diagrammatic perspective view of a portion of an elongate member in accordance with the present invention;

Figure 2 is a diagrammatic exploded cross sectional view of the elongate member shown in Figure 1;

Figures 3a, 3b and 3c are diagrammatic plan and side views of first, second and third plates of an interconnecting means of the elongate member shown in Figures 1 and 2; and

Figures 4a and 4b are diagrammatic cross sectional views of the elongate member shown in Figures 1 and 2 with the elongate member shown in a first orientation and a second orientation respectively.

Referring to the drawings, there is shown an elongate member 10 for locating an article (not shown) in a location upwardly of and remote from a base plane (not shown) which may be the ground or an elevated platform.

In this example, the article will be taken to be a light source. However, it will be appreciated that other articles are envisaged, for example a flag or an antenna.

The elongate member 10 includes a first portion 12, a second portion 14 and interconnecting means 16 which is disposed between the first portion 12 and the second portion 14.

The first portion 12 extends upwardly of the base plane to the interconnecting means 16. The first portion 12 is fixed at a lower end to the base plane.

The second portion 14 extends from the interconnecting means 16 to the light source.

The interconnecting means 16 includes a first plate 18 which is fixedly connected to an upper end of the first portion 12 at an inclined angle relative to the first portion 12, and a second plate 20 which is fixedly connected to a lower end of the second portion 14 at an inclined angle relative to the second portion 14. The interconnecting means 16 also includes a third plate 22 which is separate from the first portion 12 and the second portion 14.

The first, second and third plates 18, 20 and 22 are shown more particularly in Figures 3a, 3b and 3c. The first plate 18 includes a first substantially square shaped portion 23 provided with a generally centrally disposed first aperture 24 and four second apertures 26 each of which is disposed adjacent a corner of the first square shaped portion 23.

The second plate 20 includes a substantially circular shaped portion 27 and a substantially centrally disposed cylindrical portion 28. The cylindrical portion 28 is

fixedly connected to the circular shaped portion 27. The outer diameter of the circular shaped portion is slightly smaller than the diameter of the first aperture 24.

The third plate 22 includes a second substantially square shaped portion 30 provided with a substantially centrally disposed third aperture 32 and four fourth apertures 34 each of which is disposed adjacent a corner of the second square shaped portion 30.

The first and second plates 18, 20 fit together so that the cylindrical portion 28 of the second plate 20 engages with the first aperture 24 in the first plate 18 as shown by the arrows A in Figure 2. The third plate 22 is placed over the second plate 20 as shown by the arrows B in Figure 2 such that the first, second and third plates 18, 20, 22 are disposed relative to each other as best shown in Figure 4a. The first, second and third plates 18, 20, 22 are fixed relative to each other by fixing means 36, in this example nut and bolt arrangements which pass through the second and fourth apertures 26, 34 in the first and third plates 18, 22 respectively. The fixing means 36 act to restrict rotation of the first and third plates 18, 22 relative to each other and to selectively permit or restrict rotation of the second plate 20 and thereby the second portion 14 relative to the first and third plates 18, 22.

It will be understood that when the fixing means 36 are engaged, the second plate 20 and the second portion 14 connected to the second plate 20 are free to rotate relative to the first and third plates 18, 22 and thereby relative to the first portion 12, and when the fixing means are released, the second portion 14 and the second plate 20 are not free to rotate relative to the first and third plates 18, 22. In order to facilitate this movement, it will be understood that the diameter of the third aperture 32 is sufficiently large to permit 360° rotation of the second portion 14 free of restriction.

In normal use, the elongate member 10 locates in a first orientation as shown in Figures 1 and 4a wherein the first and second portions 12, 14 are substantially parallel to each other and the light source (not shown) is disposed at a location relatively remote from the base plane.

5 When it is desired to service or replace the light source, the fixing means 36 are released but not completely disengaged so as to permit rotation of the second plate 20 relative to the first and third plates 18, 22. As a result, the elongate member 10 is free to be moved by a user to a second orientation as shown in Figure 4b wherein the second portion 14 is disposed at an angle, which may be substantially 90°, relative to
10 the first portion 12 and the light source is disposed above the ground relatively adjacent the base plane.

It will be understood that by appropriate selection of the location of the interconnecting means relative to the first and second portions 12, 14, the distance between the second portion 14 and the base plane when the elongate member 10 is in
15 the second orientation may be selected so that the second portion 14 is disposed sufficiently close to the base plane to allow a user to service or replace the article whilst still being held sufficiently remote from the base plane to avoid potential injury to persons adjacent the elongate member should the second portion 14 inadvertently fall.

20 It will be understood that in the above described example, electrical wires would be provided to supply electrical power to the light source, which wires may pass internally of the first and second portions 12, 14 from the base plane to the light source. In this way, the wires are less likely to be damaged during use.

It will be appreciated that the first and second portions may be formed of members of any suitably shaped cross-section, for example circular or square shaped cross-section, the important aspect being that the outer surface of the second portion does not restrict rotation of the second portion by scribedference with the third plate.

5 Modifications and variations as would be apparent to a skilled addressee are deemed to be within the scope of the present invention.

DATED THIS 5TH DAY OF OCTOBER 1999.

10
15 **ROBERT JOHN PANNEKOEK**
By his Patent Attorneys
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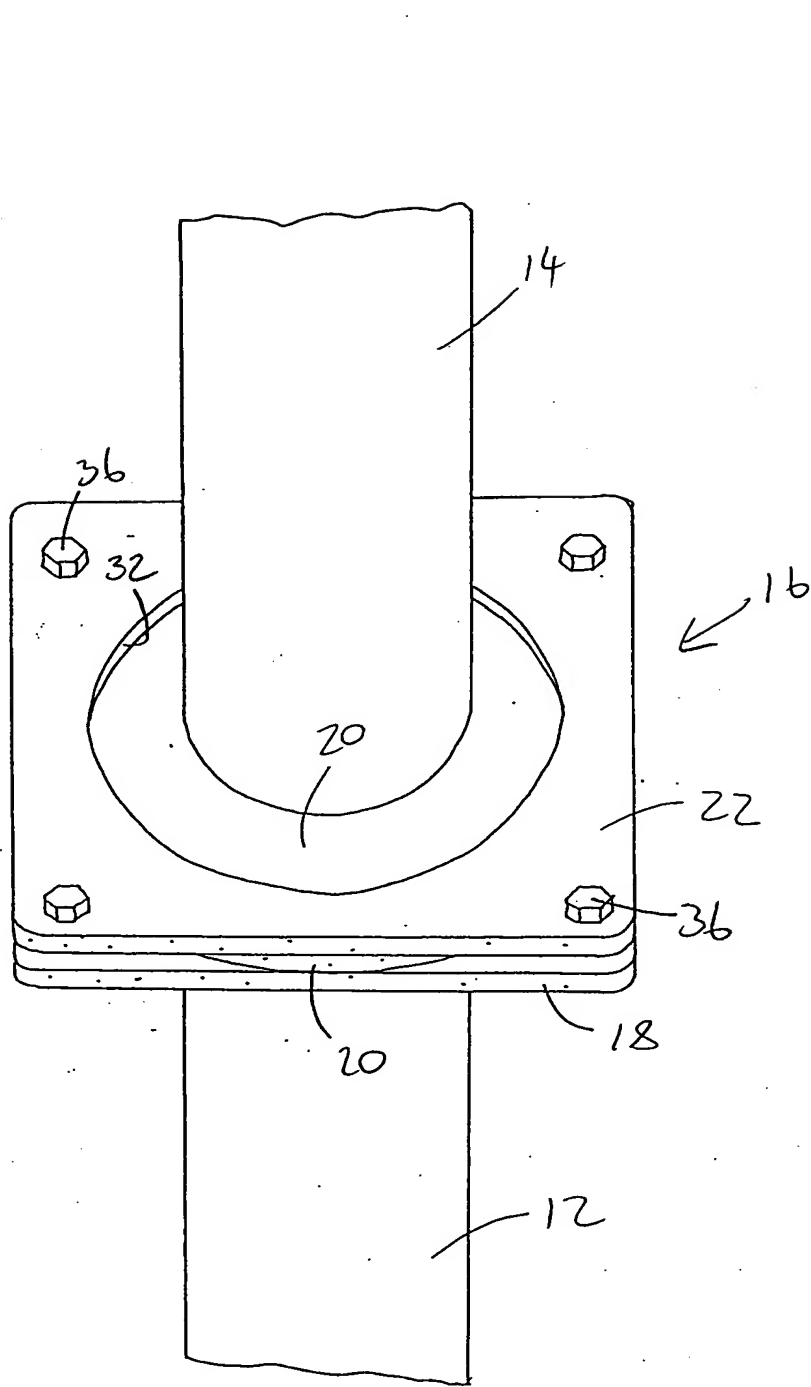


Fig 1.

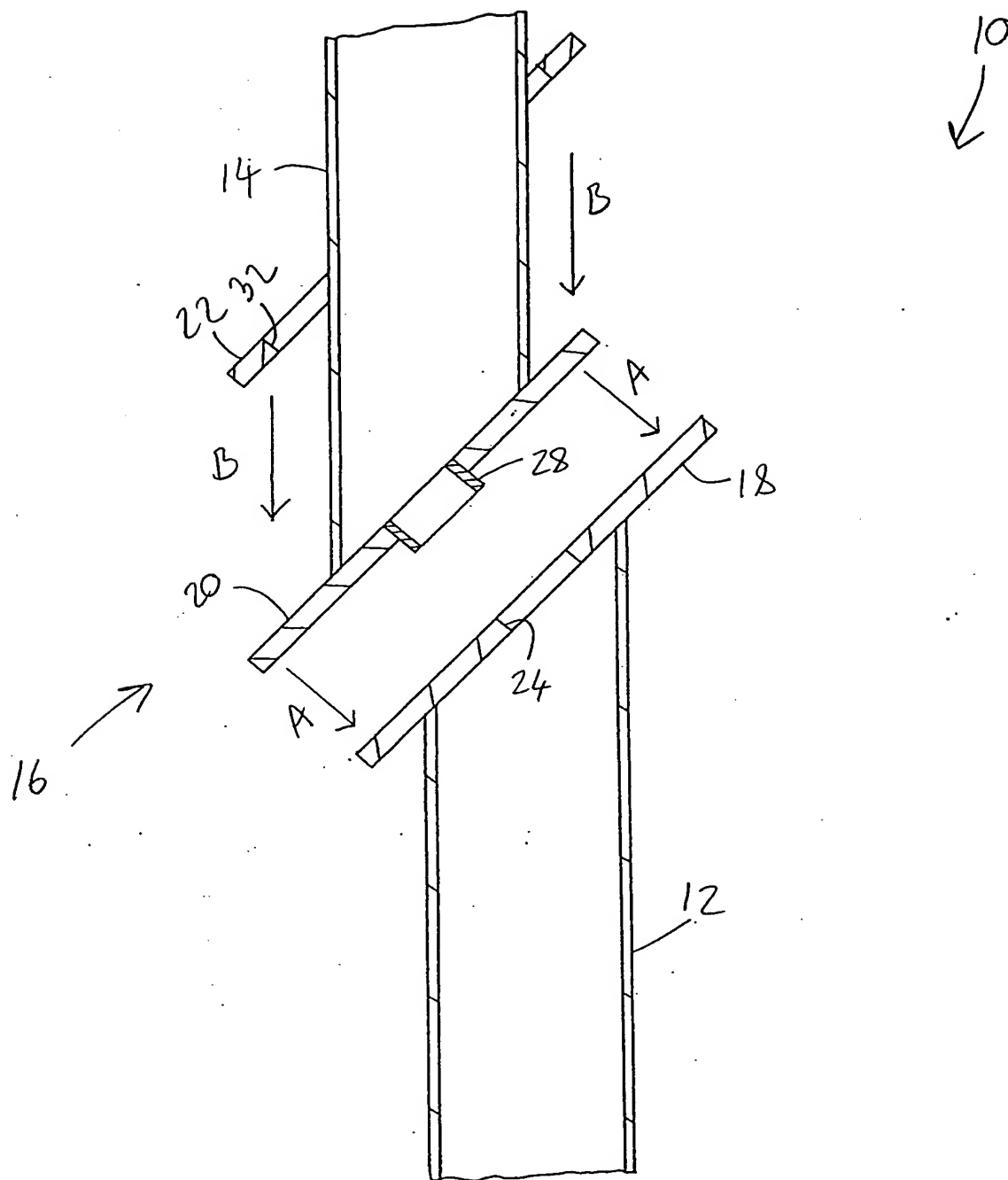


Fig 2

Fig 3a

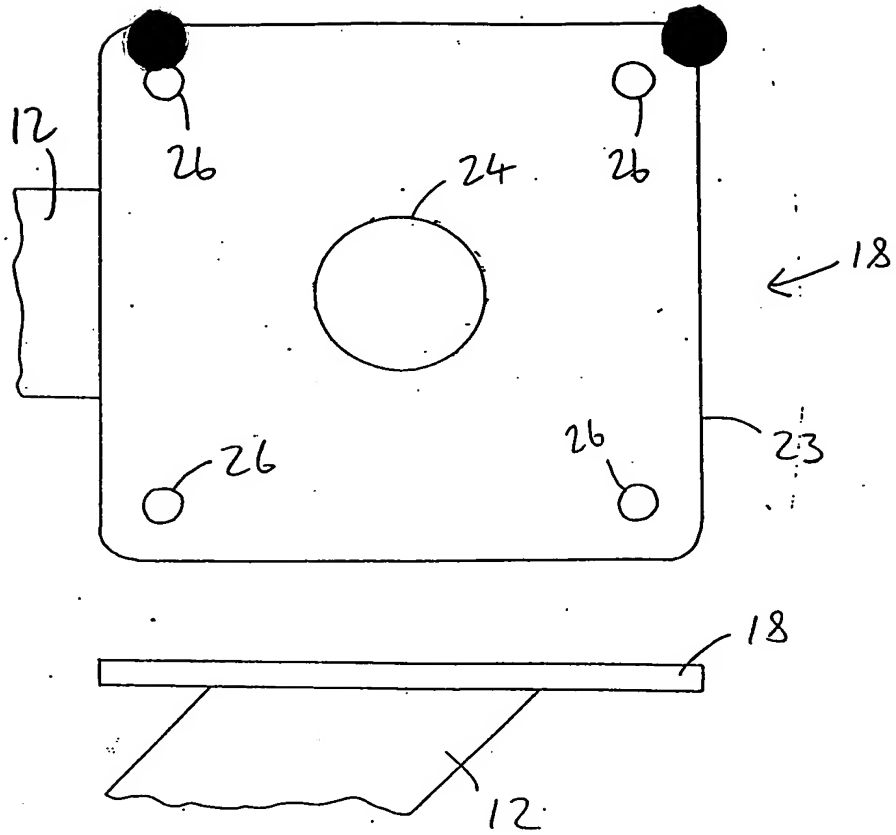
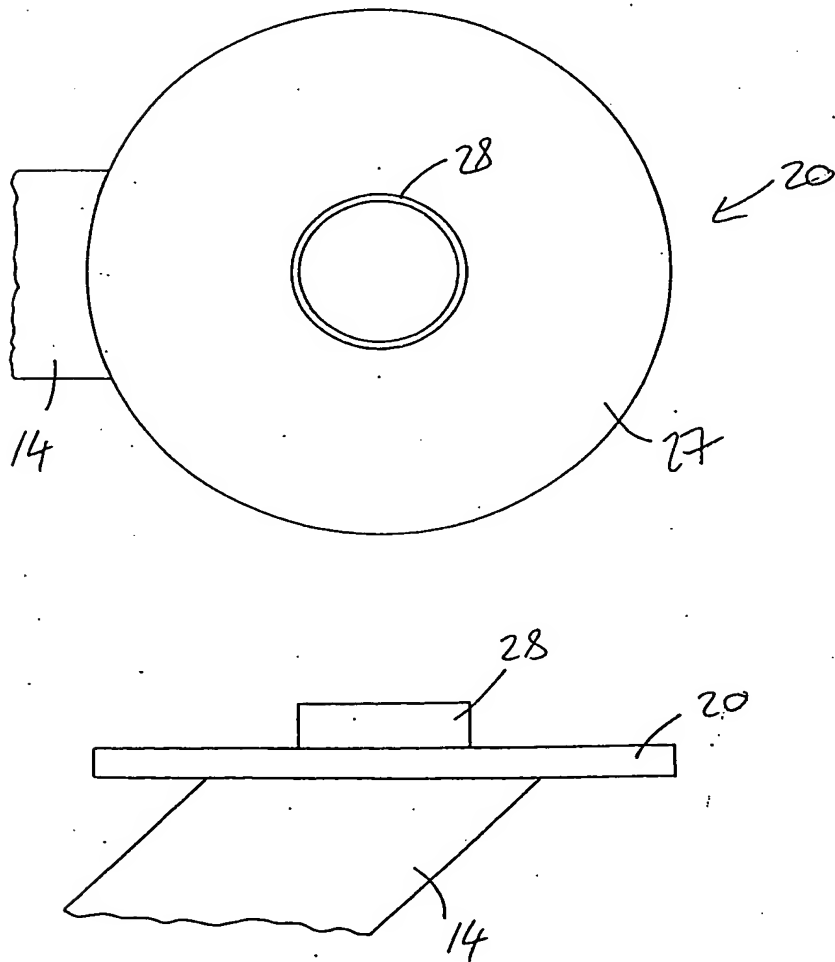


Fig 3b



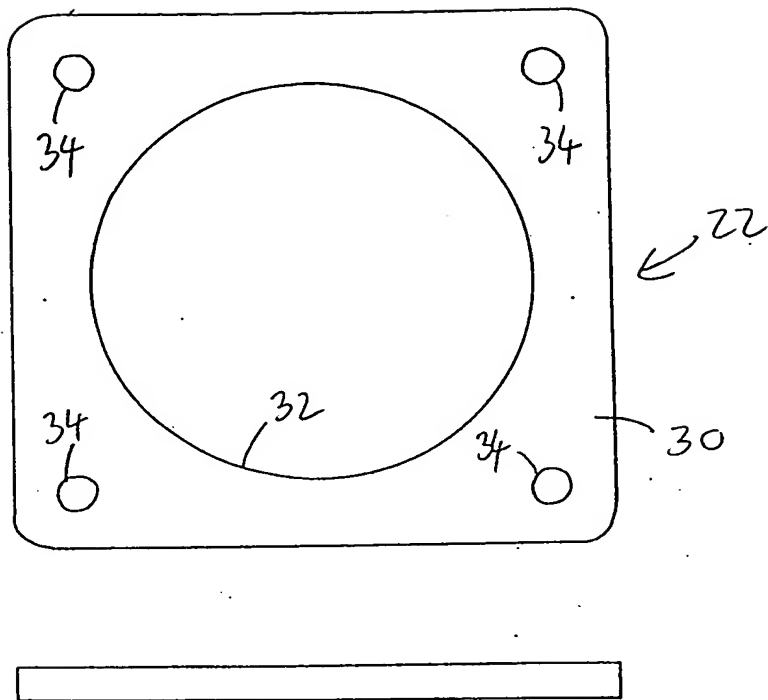
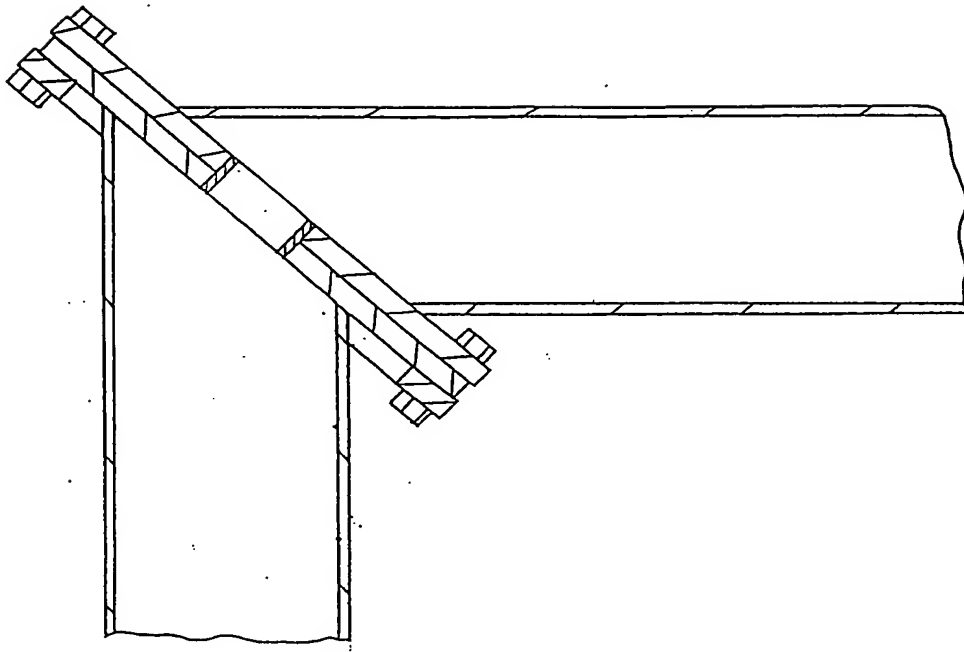
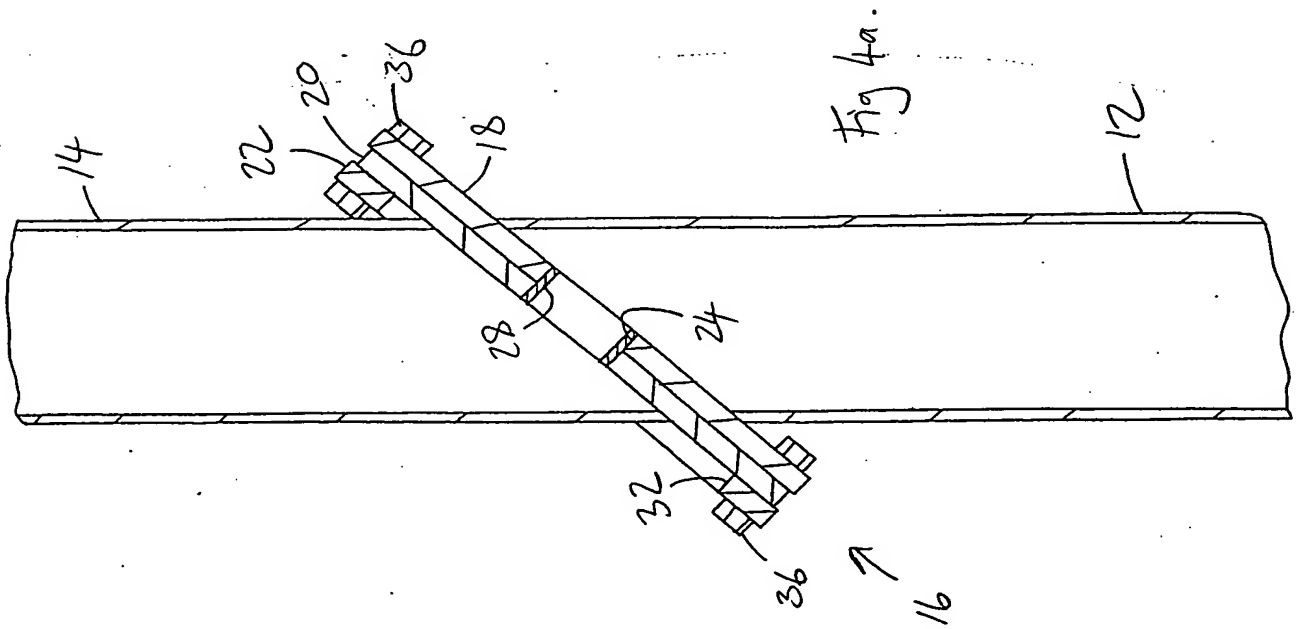


Fig 3c.



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